

# Enhancing Education Through Technology (EETT) Competitive Sub-grant Application Assurance Sheet

Project Title: Wilder Math & Science Amount of Request: \$ 74,988  
 District Name (Fiscal Agent for Consortiums): Wilder Schools Number: 133  
 Please list the school name, and indicate whether it is a targeted school or a partner school and certify the CIPA compliance for all participating schools within the project:

Dist. # or 'P' for Private School	School Name	This school is a targeted school 'T' or a partner school 'P'.	This school is in compliance with the CIPA as outlined on page 3 of the guidance document.
133	Wilder Middle/High School + Holmes Elementary	<u>T</u> P	<u>YES</u> NO
		<u>T</u> P	<u>YES</u> NO
		T P	YES NO
		T P	YES NO
		T P	YES NO
		T P	YES NO
		T P	YES NO
		T P	YES NO
		T P	YES NO
		T P	YES NO
		T P	YES NO
		T P	YES NO

*By signing below, I certify that we have contacted the charter and private schools in our area about participation in this grant and that we have an approved technology plan on file with the Idaho State Department of Education.*

Superintendent Name (print) <u>DANIEL B. DARRIDA</u>	E-mail <u>darrida@sd133.k12.id.us</u>	Telephone <u>482-6228</u>
Signature 		
District Technology Coordinator Name (print) <u>David W. Lewis</u>	E-mail <u>dlewis@sd133.k12.id.us</u>	Telephone <u>208 482-6228</u>
Signature 		
Project Director Name – if different than District Technology Coordinator (print)	E-mail	Telephone
Signature		

***Additional Consortium/Partnership Participants:***

(Add additional pages as necessary)

Organization Name		
Supervisor Name and Title* (print)	E-mail	Telephone
Signature		
Organization Name		
Supervisor Name and Title*(print)	E-mail	Telephone
Signature		
Organization Name		

\*Superintendent must sign for school districts. Dean must sign for Colleges of Education



**Enhancing Education Through Technology (EETT) Due November 16, 2007  
Wilder School District #133**

**Abstract:**

Wilder School District has been an active participant in the Idaho-PLATO Learning Network (I-PLN) project and has used the program in our 21<sup>st</sup> Century grant with our after school students. Through this project, the District has unlimited licenses of electronic curriculum K-12 in the content areas of reading, language arts and mathematics. As the focus of this Title II (D) grant is for Enhancing Education Through Technology (EETT) in the content areas of Mathematics and Science, the Wilder School District would also like to add PLATO Secondary Science (6-12) to its current PLATO implementation. The District will also up-to-date one lab, purchase a 20 laptop mobile lab and provide graphing calculators with scientific probes for use in both the middle/high and the elementary schools for the purpose of not only improving math and experimental science instruction/learning but to enhance the use of PLATO. The Wilder Math & Science EETT project in the Wilder School District #133 will focus on accomplishing five goals.

- The District will add PLATO Secondary Science (20 licenses) to its curricular opportunities for teachers and students.
- The District will use PLATO to enhance technology use and improve mathematics and science instruction and learning.
- The District will increase the professional development offerings in the use of PLATO and the learning of mathematics and science and use of technology.
- The District will install four document cameras in the participating teacher's rooms.
- The District will provide a mobile laptop lab for use in the Middle/High and elementary schools.
- The District will purchase 12 graphing calculators and probes that will allow students to participate in field research in physical and environment science.

The objectives to accomplish the District's five goals are:

- To increase student achievement and access to the study of science and technology.
- To increase student achievement and access to the study of mathematics and technology.
- To increase technology use (laptop labs and graphing calculators) by teachers and students.
- To increase the Districts capability for ISAT student preparation and testing.
- To increase teacher and student knowledge, skill, and use of technology in teaching and learning mathematics, science, and technology.
- To increase the number of students completing a third year of mathematics and science.
- To increase the visibility, viability, and use of technology across the curriculum.
- To increase the potential sustainability of the project once the grant funds are gone.

The District has committed itself to improving opportunities for learning and to raising the graduation rate and lowering the dropout rate. The use of PLATO, an additional mobile laptop, and other existing technology, and with subsequent staff development will improve teaching and learning in math, science and technology use. Student achievement (test scores), graduation rates, and dropout rates tracked over the next five years will be used as evidence of the effectiveness of this program.



### **Educational Need Narrative:**

Wilder School District, with 429 students, is located in the city of Wilder, Idaho, population 1,462. Of the 429 students Wilder School District serves, approximately 92% qualify as economically disadvantaged but because of this high of a percentage 100% of our students receive free breakfasts and lunches. The District student population is 83% Hispanic with the largest identifiable minority group being Caucasian (19%). Both the high percentage of economically disadvantaged combined with the high minority ratio combine to present our students with greater challenges in education than more affluent and lower minority schools face as reported by Kim Kruse in "The Effects of a Low Socioeconomic Environment on a Student's Academic Achievement" and Lloyd Humphries in "Trends in Levels of Academic Achievement of Blacks and Other Minorities."

Wilder Middle School has received a 21<sup>st</sup> Century grant to help run an after school program for our 4-8 grade students and presently serves over 40 students which was intended to help overcome some of these challenges. One part of the after school program is the PLATO on-line learning program. The PLATO math curriculum, and in time the science curriculum, is designed to provide instruction from a basic to an advanced level. This standards-based courseware and individualized instructional program has proven successful in numerous research studies worldwide. However, the use of this program is limited due to computer lab accessibility and availability of compatible machines and at this time is only one aspect of Wilder's comprehensive attempt to improve Math and Science achievement. To fully develop District plans, we are requesting funding to upgrade the mobile laptop lab and an upgrade to an existing lab. Currently, the lab does not have the system requirements to run the PLATO program. By increasing the lab's capability, teachers would be able to implement the curriculum. It would give them the flexibility they need to meet each student's needs.

The Idaho State Board of Education has increased the requirements for high school graduation to include students completing more mathematics and science. All schools, teachers, and students will be hard pressed to meet these new requirements and the needs of all students and diverse learners. The Wilder District is not satisfied with current level of student performance. One only has to look at the District's student performance on the AP/SAT/ACT/ISAT exams to know that there is need for improvement. Following is the most current Wilder District AP/SAT/ACT/ISAT information. Math and science is of particular concern on the exams.

### **Wilder Information and SAT/ACT Statistics:**

#### Wilder Math SAT scores for 2007-08

Wilder Math	390 out of 800	State average - 533	National average - 504
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#### Wilder Math and Science ACT scores for 2007-08

Wilder Composite	17.8 out of 36	State average - 22.7	National Average - 22.0
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Wilder's student math performance, based on ISAT and DMA 6<sup>th</sup>, 8<sup>th</sup>, and 10<sup>th</sup> grade scores are steady. We also want to be proactive now that the state is testing in science. Sixth grade math ISAT scores show 56% proficient; 8th grade scores show 63% proficient and at the 10<sup>th</sup> grade 93% demonstrate proficiency on the ISAT. Only 32% of 6<sup>th</sup> graders are proficient on the DMA and 38% of 8<sup>th</sup> graders are proficient on the DMA.



Improving Wilder's graduation rate (85%) and decreasing the drop-out rate (15% annually) is also a consideration attributed to the hoped for success of this grant and District efforts.

In Wilder PLATO's primary use has been at the 4-8 level. There it has been used by our after school program to individualize learning and help students review missed concepts. In the high school a few students have used PLATO as a remediation tool to learn key concepts missed in the regular classroom. This grant will extend and enhance the use and capabilities of PLATO by extending the use to a boarder spectrum of students as well as add the science content now required for ISAT.

PLATO in conjunction with IDLA are two of the supporting forms of technology to be used in our district as intervention efforts and to help students with remediation, credit recovery, and to help students meet new State Board graduation requirements in math and science.

Wilder has already started to incorporate technology in the classroom with the installation of SmartBoard/projector combinations in several of our classrooms. Information on SmartBoards taken from EdThoughts on using technology in the math classroom states among other things that the learning experience becomes more student-centered. Benefits of the use of instructional technology include increased accuracy and speed in data collection and graphing, real-time visualization, interactive modeling of invisible mathematical processes, ability to collect, compute, and analyze large volumes of data, collaboration for data collection and interpretation, and more varied presentations of results. With appropriate technology accompanied with a SmartBoard, teachers could demonstrate theorems and proofs for the students. This is important to help the students move through the Van Hiele levels of logical thought from concrete to abstract. The SmartBoards and appropriate technology would allow the whole class to discuss what is happening. There is power in having students explain to their peers what they are thinking. A SmartBoard combined with other technology such as the graphing calculator and CBL(Calculator Based Laboratory) probes would allow dynamic data collection, both in the field and in a laboratory, during surveys and experiments for the class, along with different demonstrations that would be possible. A SmartBoard will allow teachers to give visual demonstrations of word problems and connect concrete to abstract.

Ready access and use of technology, both for instruction and student learning, provided by a mobile laptop lab, will enhance the learning of math and science similar to the use of Smart Boards. Both technologies will be used to improve math, science, and technology instruction, improve student performance in math and science, and the improved integration of technology use across the curriculum for both teachers and students. All schools will strive to meet AYP.



## Local Project Narrative:

### WILDER SCHOOL DISTRICT #133

Wilder School District, population approximately 429, is located in the city of Wilder, Idaho, population 1,462.

The District is working cooperatively with the community to gain their assistance meeting the needs of our future students. Our District Leadership Team, Administrative Team, School Board, and staff have closely monitored the results of our collaboration efforts, assessments, instructional coach implementation, curriculum changes, classroom size, and overall District policy/procedure concerning academics to ensure that our efforts are providing the desired results, individual student academic growth. As we review the five years of performance data, the District can say that we are not at all disappointed in the results of our efforts, even though we realize further improvement is desired.

The District has completed a review and revision of the District's Strategic Plan. The goals and objectives in this plan provide more focus on those items that provide challenges for our School District. The District leadership team has been reorganized by creating a K-12 principal, Joe Youren who is responsible for instruction, assessment and curriculum so that it can be more responsive and more engaged in its duties. The membership includes, in addition to Mr. Youren, the districts reading math and science coaches Tom Farley and Leona Manke. This Team has also participated in the development of the District and individual schools' Continuous Improvement Plans, helping to insure that the plans were appropriately aligned with the District Strategic Plan. The Leadership Team, consisting of 4 elementary and 4 middle/high school teachers, continues to act as the oversight committee for District goal setting, action planning, curriculum, and professional development.

Wilder has as an on going project a continuous revision of our curriculum attempting to not only align it with the State standards but also improve student achievement. To this end we have recently rewritten our math and science curriculum to include a experimental approach to both science and math. This project commenced during the 2006-2007 school year and will be on-going. In policy, we have a comprehensive assessment matrix, which includes all state and federal assessments as well as local assessments and measurements. Central to this is the inclusion of DWA(Direct Writing Assessments), CAR(Content Area Retell) and quarterly math assessments which have been base on the DMA(Direct Math Assessment). One objective within our Strategic Plan obligates us to continue work on this matrix, to include end-of-course assessments and other formative assessments as they are developed within the District. A second objective commits the District to develop a plan that guarantees all administrators and teachers have access to and use student achievement data to make instructional and program decisions.

Student achievement data is a small portion of the data we use to evaluate our programs and instructional methods. All of our data shows improvement in student achievement over the five-year period that we have been gathering this type of data. We are pleased with the progress shown in student proficiency in Reading and Math. Our data also points out some areas of need that we must continue to address.



We are closely monitoring the dropout rates of our high school students. The High School dropout rate has decreased and we will continue to maintain and add new courses, programs and extra-curricular activities that will encourage students to stay in school, working toward an even lower dropout rate. We will make every effort to increase our advanced level/college class offerings to students. We are also making renewed efforts to offer an alternative setting with alternative instruction and credit recovery to this at-risk group. We have added to our curriculum offerings access to the Idaho Digital Learning Academy (IDLA). We are encouraged that we can positively impact students who might otherwise choose to dropout of school prior to graduating. Also, meeting considerations necessary to meet all AYP requirements is an on-going goal.

Software programs (those currently used by the District and those needing to be purchased) to enhance and improve math and science learning will be a necessity for the success of our future plans. Other major barriers for the Wilder School District are the need for additional staff development opportunities and financial limitations.

Our overall ADA percentage is at 95% for all of the schools. We will continue to strive toward our District composite goal of 97% ADA, as well as the individual building goals. In conclusion, through a continued steady pace and solid teamwork, our District will achieve the implementation of our Strategic Improvement Plan and meet all standards.

Wilder School District has been an active participant in the Idaho-PLATO Learning Network (I-PLN) project. Through this project, the District has unlimited licenses of electronic curriculum K-12 in the content areas of reading, language arts, and mathematics. Recently, PLATO has released a new mathematics program entitled Foundational Mathematics. This program has been made available at no additional cost for all Idaho school districts, including Wilder, and is intended for use with secondary students who need remediation with math skills typically considered to be K-8. The design of this program is complimentary to current efforts underway in the Wilder District. Screen shots, demo lessons, and overview materials may be accessed at: <http://www.PLATO.com/products.asp?cat=Instructional&mark=sec&subj=math&ID=167> Prior to the release of this courseware, the I-PLN project supplied three days of professional development for all Idaho school districts. This preliminary professional development served as an introduction to the management system and curriculum. It was modeled after the train-the-trainer approach. It is the proposal of the Wilder School District that additional professional development is needed and should be purchased through PLATO Professional Services. Other professional development will take place that supports using mobile laptop tech labs and CBLs.

As the focus of the Title II(D) grant is for Enhancing Education Through Technology (EETT) in the content areas of Mathematics and Science, the Wilder School District would also like to add PLATO Secondary Science to its current I-PLN implementation in the spring of 2009. This courseware includes Life Science, Physical Science, Earth & Space Science, Chemistry and Biology. In addition, this package will include the CyberEd dissection simulation series, and Model ChemLab Pro would be purchased in 2009. Training in the use of software and hardware would be in April and May of 2009. All hardware purchases would be completed and installed in April 2009 so that teachers would have it available for training.



**Sustainability Narrative:**

Technology will continue to be an integral part of the educational offerings and programs in the Wilder District. Since Wilder School's believes that technology systems are the operational backbone of the education process we have included the following goal statements in our 2005 Technology Plan for the Wilder School District.

Create and maintain compatible and secure technology systems that enhance the efficient operation of schools. Technology systems that foster high productivity and utility are necessary to support effective education and administration; which in turn, promote student academic achievement

The purposes of technology in the Wilder School District are to enhance:

- the quality, effectiveness and relevance of instruction and learning by integrating technology with curriculum,
- student learning and achievement, and
- the efficient operation of its schools.

**Increasing Teachers Capacity to Integrate Technology Effectively into Instruction**

The Wilder District continues its commitment to assist all teachers in becoming competent in the use of technology and to the improvement of instruction and learning of math and science in the classrooms of all Wilder schools.

One of the first steps to increasing teachers' capacity to integrate technology effectively into instruction is to provide equitable access to technology for all teachers and students. Professional development and training in math and science technology will promote teachers use of technology in their classroom instruction. All upper elementary, middle school and high school math and science teachers have a Smart Board installed in each of the schools' math and science departments. Once teachers receive professional development in the effective use of math and science technology, they will confidently utilize this technology and instructional and curricular resource to enhance their instruction and student learning.

Student success will demonstrate to teachers the effective use of technology in effectively supporting classroom instruction and student achievement. All teachers will be encouraged to utilize all technology available to provide additional and enhanced educational opportunities and interventions for all students.

Wilder continues to provide both ICTL and district funds to support teacher training and hardware maintenance. Over the last 3 years we have provided over 50 hours of training to our staff on Plato, SmartBoards, and Office applications. Some trainings were on site while others were via online opportunities. The district also pays for the majority of the hardware support required to keep the equipment running.



## Budget Narrative:

### Wilder Science Technology EETT Grant 2008

Qty	Description	Unit Price	Total
20	Plato Secondary Science	\$960.00	\$19,200.00
	Professional development for 10 teachers	\$18,800.00	\$18,800.00 ✓
20	Laptops	\$850.00	\$17,000.00
14	Computer upgrades	\$550.00	\$7,700.00
35	probes	\$200.00	\$7,000.00
4	Lumens document cameras	\$650.00	\$2,600.00
12	TI 83 calculators	\$149.00	\$1,788.00
1	laptop cart w/wireless router	\$900.00	\$900.00
			✓ \$74,988.00

Budgeting for technology upgrades, PLATO enhancement, professional development and additional technology is based upon meeting the District's Strategic Plan. The District Strategic Plan adopted during the 2004-2005 school year developed in conjunction with Northwest Regional Educational Labs will continue its focus on teachers' effective use of research-based instructional techniques.

- The District Improvement Plan will continue its focus on assisting below proficient students in math and science by providing support for proven interventions.
- The District will continue its support and expansion of the LEP program.
- The District will continue the support of increased access to learning opportunities generated by such additions as Idaho Digital Learning Academy offerings.
- Teachers will continue weekly collaboration, sharing and connecting expertise in integrating technology into their classroom instruction.
- Teachers will continue to implement and support extended learning opportunities for students.
- Teachers will continue using achievement data to make valid instructional decisions.
- The District will continue to provide and support the necessary technology and infrastructure to provide equitable access to internet resources and educational materials.
- The District will continue to provide on-going extensive professional development for improving math and science achievement.
- Teachers experienced using PLATO and technology will continue to act as mentors to new teachers, helping them to implement the District's programs.

The District will absorb any administrative costs associated with the EETT grant. ✓

**Enhancing Education Through Technology (EETT)**  
**2008-2009 Title II (D) - Federal Grant Program**  
**Competitive Sub-Grant Application**

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Submitted ( 11/21/08 )